

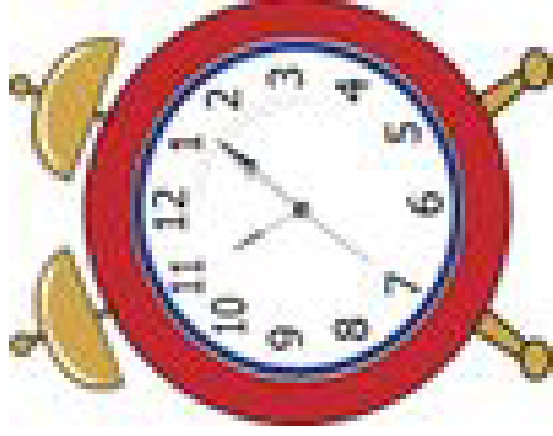
**EMERGENCY
PREPAREDNESS
WHAT'S WRONG?**

September 13, 2012

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Pilgrim Watch, Director**

FUKUSHIMA'S LESSONS

Wake up Call or Snooze Alarm?



WHAT'S FUNDAMENTALLY WRONG?

1

Rules Lack Specificity
Requirements

RULES PROVIDE FLEXIBILITY LACK ACCOUNTABILITY

Capability Based Rules =

- **Licensee given flexibility**
- **Licensee saves money**
- **Licensee no real accountability**

Performance Based Rules =

- **Enforceable/Accountability**
- **Public Safety First**

WHAT'S FUNDAMENTALLY WRONG?

#2

What Rules Do Not Address

**Until the basic issues are faced-
no “reasonable assurance”**

EMERGENCY PLANNING ZONE

20/25 MILES

- **NRC advised U.S. citizens in Japan within 50 miles to evacuate**
- **NRC says advice was an ... “ABUNDANCE OF CAUTION”**
- **Why not the same “ABUNDANCE OF CAUTION” for citizens here?**

DOSE PROJECTIONS

What's Wrong?

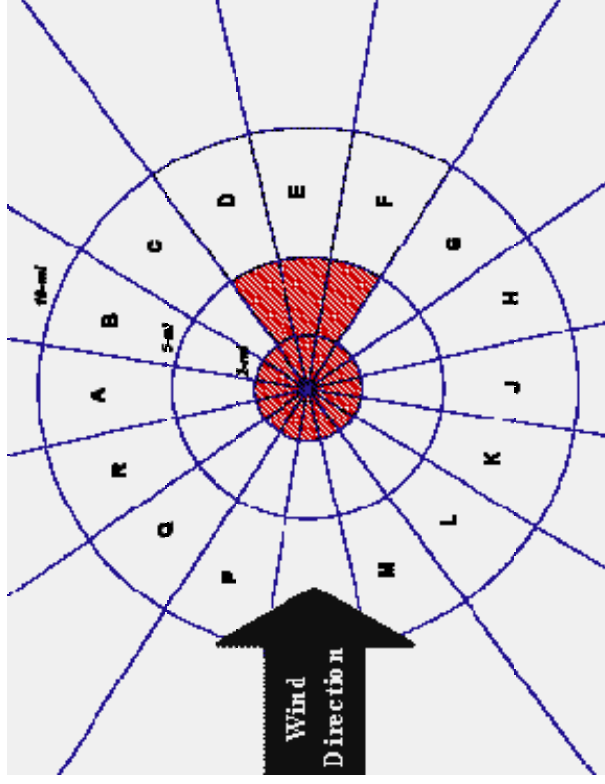
Likely Amount & Impact Radiation Released Minimized

- **PAGs not based on BEIR VII**
- **Large accidents ignored, e.g.**
 - **spent fuel pool fire**
 - **hydrogen explosions**
 - **core or containment breach**
 - **more than 1% fuel failure**

PLUME MODELING

What's Wrong?

Key Hole



PLUME MODELING

What's Wrong?

- **Plume modeling based simplistic straight-line, Gaussian plume; not suited for complex sites (non-temporal, non-spatial)**

What's Needed?

- **Advanced variable models and multiple meteorological towers for both pre-planning & response**

NOTIFICATION

What's Wrong?

Require Multiple Redundant Systems & Backup

- **Sirens- outdoor alert**
- **Reverse 911- indoor alert**
- **Electronic Reader Boards**
- **Emergency Alert System**

PROTECTIVE ACTIONS EVACUATION-WHAT'S WRONG?

- **Staged Evacuation (2 miles, followed by keyhole from 2-5 mi then perhaps extend keyhole 5-10) unrealistic**
- **Reception Centers equipped for only 20% population –conflicts guidance “Shadow Evacuation” assumes only 20% out to 15 miles-unrealistic**
- **ETE’s (NUREG/CR 7002) based “best case” scenario**

RADIOLOGICAL PROTECTION

POTASSIUM IODIDE (KI):

- support stockpiling to 20 miles (Bioterrorism Act, 2002)**
- require both tablets & liquid KI for young children**

3-M TYPE MASKS:

- require stockpiling both adult & children’s sizes in schools/shelters**

EMERGENCY WORKERS

What's Wrong?

- Communications: Require interoperability
- Protective Gear: Require protective clothing/masks & training for its use
- REWMDS: Radiological Emergency Worker Monitoring Decontamination Centers - require multiple centers per EPZ, located > 20 miles from reactor

RETURN & RECOVERY

What's Wrong?

- **No Agreed Clean-Up Standard**
- **No Federal Agency In Charge**
- **No Money- Price Anderson pays damages, not clean-up**
- **MACCS2 (MELCOR Accident Consequences (MELCOR Code) used to estimate consequences – outdated & severely underestimates offsite consequences**